## REMARKS/ARGUMENTS

Applicants wish to thank the Examiner for considering the present application. In the Office Action dated May 16, 2003, claims 1-23 are pending in the application. Applicants have added no new matter. Applicants respectfully request the Examiner for reconsideration. The allowability of claim 23 is acknowledged.

Claim 15 is objected to because of the informality of an extra semicolon after the word an. The semicolon has been removed above.

Claims 1, 3-8, 10, 11, 12, and 14-19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Chang* (6,338,615) in further view of *Wissinger* (5,475,520). Applicants respectfully traverse.

Claim 1 is directed to a method for rapid acquisition of a subscriber that defines a coverage area as an arrangement of a plurality of cells wherein one of the plurality of cells includes a specific subscriber. The next step includes defining a partition of cell clusters. One of the cell clusters includes one of the plurality of cells that includes the specific subscriber. A beam is then formed that corresponds to the area of one of the cell clusters. Claim 1 has been amended to clarify that the beam is then sequentially scanned to each of the cell clusters until the one of the cell clusters that includes the specific subscriber is identified. So only one cell cluster at a time is scanned. The partitioning of the cells into progressively smaller cell clusters and zooming and scanning a beam to the progressively smaller clusters is performed until a location of the specific subscriber cell is determined. The partitioning, zooming and scanning features are performed until the location of the specific subscriber is determined. This method is a significant improvement over the raster-type scanning performed in Figure 1 of the present application.

The Examiner rejects claim 1 with respect to the *Chang* reference and the *Wissinger* reference. The Examiner acknowledges on page 2 of the Office Action that the *Chang* reference does not specifically state forming cell clusters and scanning. The *Wissinger* reference is illustrated for showing this concept. The *Wissinger*

reference is best understood by looking at Fig. 8. In Fig. 8 an acquisition process is illustrated. This is described beginning in Col. 5, lines 16-57. As can be seen, four beams are used to cover an area. The beam with the transceiver 13 located therein is narrowed to four more beams. The four beams are then identified again and further narrowed. However, in each of the figures, four beams are formed at one time and are narrowed to four smaller beams which in turn are narrowed to four smaller beams. Thus, the steps of forming a beam that corresponds to an area of one of the cell clusters and sequentially scanning the beam to each of the cell clusters until the one of the cell clusters that includes a specific subscriber is identified is not taught or suggested in the *Wissinger* reference. Claims 8, 15, 19, and 20 have been amended in a manner similar to Claim 1 to highlight the fact that only one beam is used in the scanning. It is respectfully submitted that Claims 1, 3-8, 10, 11, 12, and 14-19 are allowable over the *Chang* and *Wissinger* references for at least the reasons set forth above.

Claims 2 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Chang* and *Wissinger* in further view of *Diekelman*. Claim 2 depends from Claim 1 and is believed to be allowable for the same reasons set forth above since the *Diekelman* reference fails to teach or suggest the elements of Claim 1 that are missing from the *Chang-Wissinger* combination as discussed above.

Claim 13 is dependent upon claim 12 which has also been amended in a similar manner to that of claim 1. Applicants respectfully request the Examiner for a reconsideration of claims 2 and 13.

Claims 8, 10, and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Chang* in view of *Wissinger* in further view of *Lo*. Applicants respectfully traverse.

The *Lo* reference is used for teaching a ground station having a beamformer. Applicants agree that the *Lo* reference teaches that the beamformer may be either on the ground or on the satellite as recited in Col. 3, lines 19 and 20. However, the

specific cell clustering aspect of the invention as recited in claim 8 is not taught or suggested.

Claims 10 and 11 are further limitations of claim 8 and are believed to be allowable for the same reasons set forth above.

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Chang*, *Wissinger*, and *Lo* and in further view of *Diekelman*. Applicants respectfully submit that the combination of the *Chang* reference and the *Wissinger* reference does not teach or suggest the cell clustering as recited in the present application. Applicants therefore respectfully request the Examiner for reconsideration of the rejection of claim 9 as well.
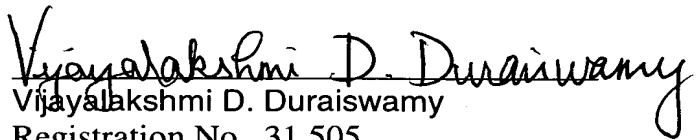
Claims 20-22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Chang et al.* and *Wissinger* in further view of *Diekelman*. As mentioned above, the combination of the *Chang* and *Wissinger* references does not teach or suggest the cell clustering as recited in the present invention. Also, *Diekelman* does not teach these missing limitations. Applicants respectfully request the Examiner for reconsideration of this rejection as well.

In light of the above amendments and remarks, Applicants submit that all rejections are now overcome. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments, which would place the application in better condition for allowance, he is respectfully requested to call the undersigned attorney.

Respectfully submitted,

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